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INTERNATIONAL AFFAIRS

ARTICLE SURVEYS GROWTH OF SOCIALIST ECONOMIES

Hanoi NGHIEN CUU KINH TE in Vietnamese No 6, Dec 76 and No 1, Feb 77

[Article by Bui Huy Khoat: "The Economies of the Socialist Countries After a Quarter of a Century (1950-1975)"]

[No 6, December 1976, pp 59-68, 75]

[Text] When communism was still "a spectre haunting Europe," K. Marx and F. Engels confirmed its inevitable victory and strong vitality. The victory of the great October socialist revolution and the formation of the world socialist system confirmed the truth of this brilliant scientific prediction. In its more than one-half century of existence and development, socialism has shown more clearly with each passing day its superiority over every other socio-economic system experienced by mankind.

The outline of the Political Report of the Party Central Committee at the 4th Congress of the Party stated: Socialism, having gone beyond the scope of one country and become a world system, has undergone extraordinary growth. "With the great achievements recorded in every area, the world socialist system today possesses a combined strength which is superior to the forces of imperialism. The rapid and continuous growth of the socialist countries originates in the superior nature of socialism. It permits the good development of each production capacity and natural resource of the country for the purpose of developing production at a rapid rate and creating a happy, beautiful life." During the 25 years following 1950, socialist industrial production developed 3.6 times faster than capitalist industry; whereas socialist industrial production only comprised 20 percent of total world industrial output in 1950, it had reached more than 40 percent by 1975. It took American capitalism 70 years to industrialize the country and British capitalism 100 years but the socialist countries of eastern Europe required only 10 to 15 years. During the same period of time (1950-1975), the average annual real increase in national income of the USSR was nearly three times greater than that of the United States; the USSR has long been ranked first or second in the world in terms of economic development, producing one-fifth the industrial products of the world. China, once an economically backward country, produced far less steel in 1949 than Great Britain did in 1800; however, it took China five times less time to achieve a

level of steel production equal to that of Great Britain. Now, China is working toward the goal of becoming an economic power by the end of this century. Together with the Soviet Union, the countries of the GDR, Czechoslovakia and Poland are ranked among the 10 most industrially developed countries of the world. In their socialist construction, all of the other socialist countries have recorded major achievements, achievements never before recorded in their history. The "spectre" of communism has truly become "the factor determining the development of mankind."

From Scientific Theory to Living Reality

Communism, the dream of generations of persons who lived in extreme poverty under the system of capitalist oppression and exploitation, was first presented by K. Marx on a scientific and realistic basis. When researching the laws of the capitalist mode of production, he confirmed: the socialization of labor and the centralization of the material means of labor within capitalism had reached the point where "the bourgeois system had become too narrow, become incapable of containing the wealth created within it any longer." (1) Capitalist production relations had long restricted the development of production forces and it had come time to "smash these relations to pieces." By means of the proletarian revolution, the working people would meet the objective requirement of history: capitalism must give way to communism.

While criticizing capitalism, K. Marx and F. Engels also outlined the general characteristics of the two stages of development of communist society. They pointed out that the special feature of communism is the "abolition of the system of private ownership," that is, "the proletariat will use its political superiority to gradually seize all of the capital of the bourgeoisie in order to put all production tools in the hands of the state." (2) With regard to the measures taken to socialize the assets of the bourgeoisie, in addition to "appropriating from the appropriators," Engels also wrote: "We cannot delude ourselves by thinking that there will be agreement with the compensation paid in every case..." (3). With regard to the ownership exercised by small-scale producers, Marx and Engels set forth a single solution, namely, "putting the ownership exercised by private individuals and their private businesses into cooperative businesses, not by forcing them, but by guiding them to this course by means of practical examples and providing them with the help of society." (4)

Once society has seized the right of ownership of the instruments of production, production forces are liberated and the system of social production develops without limit at "an increasingly rapid rate and, as a result, causes production, in reality, to become increasingly abundant." (5) The basic characteristic of this development, as pointed out by Marx and Engels, is "planned and conscious organization." At the same time, Marx and Engels stated that this strong development of production has the purpose of supporting the comprehensive development of man: "In communist society, accumulated labor is only a means for broadening, enriching and beautifying the lives of workers." (6)

With regard to the distribution of social products within communist society, Marx set forth a rather detailed position in his work "Critique of the Goethe Program." The principle underlying the distribution of these products was set forth by Marx: before reaching "the higher stage of communist society" in which "all sources of public wealth flow with abundance" thus making it possible for man to "record on his banner, work in accordance with ability, receive in accordance with need," in the lower stage, in "a communist society that recently emerged from a capitalist society," man cannot go beyond "the narrow confines of bourgeois jurisprudence" to deny the principle of distribution in accordance of labor.(7)

The theory of scientific communism was transformed by V.I. Lenin and the Bolsheviks in Russia who led the proletariat and the other strata of workers into living reality. Through the practical work of leading the great October socialist revolution and building the first socialist state in the world, Lenin developed upon the theory of Marx and Engels concerning communism, applied this theory to reality and established the fundamental elements of the socialist construction platform. He pointed out the inevitability of the establishment of the dictatorship of the proletariat in "the stage of transition from capitalism to communism" and stated that the foremost task of the dictatorship of the proletariat in "insuring the total and inevitable victory of communism" was for the "proletariat to introduce and implement a higher style of social organization of labor than that of capitalism."(8) To carry out this task, it was first of all necessary to transform the system of ownership of the bourgeoisie and small-scale producers into the system of public ownership. Developing upon the thinking of Marx and Engels and applying it to the specific circumstances of Russia, Lenin, with regard to bourgeois ownership, established "the coordination of the ruthless suppression of the uncultured capitalists... who refuse to consider any form of compromise and who continue to sabotage the measures of the soviet government...with the method of compromise, or of buying out the cultured capitalists who agree to 'state capitalism,' who are capable of putting it into practice and who are useful to the proletariat"(9); with regard to the ownership exercised by small-scale producers, he set forth his famous collectivization plan and introduced specific measures for assembling these producers in cooperatives, which developed from a low to a high level, on the basis of the principle of voluntary association and mutual benefit.

Confirming the strong development of production forces within communist society as pointed out by Marx and Engels, Lenin emphasized: "Communism means a higher labor productivity than capitalist productivity"; at the same time, he charted the specific course for reaching this objective, namely, building a system of large-scale socialist production which is highly mechanized and highly electrified as a result of carrying out socialist industrialization. He gave particular attention to building the system of large-scale industry on the basis of giving priority to the development of heavy industry because he said that "without a highly organized system of large-scale industry, it is impossible to talk about socialism, in general, and even more impossible to talk about socialism within an

agricultural country."(10) In reality, the entirety of the socialist construction of the first worker-farmer state in the world has been closely linked to the famous formula of Lenin: "Communism is the soviet government plus country-wide electrification."

In view of the increasingly abundant material wealth resulting from the system of socialist production and the implementation of the principle of distribution of "he who does not work does not eat," Lenin confirmed that "only socialism can create the capability for expanding the system of social production and truly control this system of production together with the distribution of products on the basis of scientific bases in order to make the lives of all workers as comfortable as possible and provide them with the conditions for enjoying happiness."(11)

While carrying out socialist industrialization and the socialist transformation of agriculture, Lenin's socialist construction platform also encompassed the task of the cultural revolution. He pointed out that the revolution is an undertaking of the masses, consequently, it is impossible to ignore the task of raising the level of awareness of the masses so that they struggle against old thoughts and customs and develop their revolutionary zeal and creative spirit while raising their scientific and technical level and building a corps of intellectuals of the working class.

Inheriting the work of Lenin, the communist party of the USSR, led by J.B. Stalin, victoriously carried out the tasks of agricultural collectivization and socialist industrialization and successfully built socialism in the USSR. Once an underdeveloped capitalist country, Russia became a socialist power possessing a modern industry, modern agriculture, strong national defense system and advanced science and technology. The soviet state, the first fruit of the application of Marxist-Leninist theory to reality, was challenged and displayed its invincible strength in the anti-fascist war which concluded with the unconditional surrender of the enemy. Evaluating the important significance of this historic event, Le Duan wrote: "The victory of the USSR in the anti-fascist war not only protected the first socialist state, but it also created the conditions for the revolutions of numerous European and Asian countries to win victory, thereby bringing socialism from the scope of one country to a world system, stimulating the intense development of the national independence movement and creating a comprehensive offensive position against imperialism."(12)

Following World War II, the world socialist system was born for more than one-third of mankind. The classical theory of Marxism-Leninism and the valuable experiences of the USSR in socialist construction were creatively applied by the new socialist countries and constantly supplemented, developed upon and improved. After completing the task of post-war economic reconstruction, the USSR continued its 5-year plans for developed socialist construction and the other people's democracies began the period of building the bases of socialism. Generally speaking, this period lasted for a few 5-year plans and involved the primary tasks of establishing the new, socialist production relations throughout the national economy on the basis of abolishing

the system of capitalist ownership and transforming the system of ownership of the small-scale producers in order to open the way for the development of production in accordance with the country's industrialization program.

Sharing the common goal of socialist construction and economically surrounded by imperialism, economic relations were formed at an early date among the fraternal countries and developed strongly. The USSR has played a very important role and been the pillar of the world socialist economic system. In January 1949, the USSR and a number of eastern European people's democracies established "the economic mutual assistance council" which laid the groundwork for the formation and development of the international division of labor and cooperation of the entire socialist system.

In the mid-1960's, the various countries entered the period of continuing to build, develop and strengthen the socialist economy. In the USSR, the completed construction of developed socialism played a strong role in building the material-technical base of communism. Many eastern European socialist countries, having declared the virtual completion of socialist construction, entered the period of developed socialist construction. China, Korea, Mongolia and Cuba continued to build the material-technical base of socialism in the task of the period of transition to socialism. Vietnam simultaneously carried out two strategic tasks: building socialism in the North and completing the national democratic revolution in the South.

The principle characteristic of this period was that many countries moved into the front rank in the task of developing their economies in depth on the basis of accelerating the scientific-technological revolution in conjunction with perfecting the socialist production relations, improving the system of socialist economic management and expanding the socialist international division of labor in order to strongly increase the returns from social production and insure the continuous improvement of the material and spiritual lives of the people. The recent completion of 1971-1975 five year plans in a number of socialist countries recorded the important results of this stage of development.

From Poverty, Backwardness and the Ravages of War to the Pinnacles of Development

Following World War II, the majority of the countries within the socialist system were poor, backward and economically underdeveloped countries which, in addition, had been seriously damaged by war. The USSR had completed the construction of the material-technical base of socialism in the late 1930's but it was the country which suffered the greatest losses in the war: 20 million of its citizens were killed, 1,710 provinces and municipalities and more than 70,000 villages were destroyed and 30 percent of its national assets were damaged. In the war, China, then an economically backward, semi-feudal and semi-colonial country which could not produce enough steel each year to manufacture the hoes needed within the country, had 80 percent of its steel production capacity, 50 percent of its coal output and one-third of its agricultural production destroyed. Prior to the war, Albania and

Bulgaria had the most backward economies in Europe; following liberation, the industrial output of Albania was only one-half of what it was before the war and Bulgaria's was only 64 percent of its pre-war level. Romania, then the "corner of starvation and poverty in Europe" and whose development was 100 to 150 years behind that of the western European capitalist countries, suffered damages in excess of 1 billion dollars in the war. The GDR, although it was a rather developed economic region, had 60 percent of its means of communications and transportation, more than 90 percent of its machine manufacturing sector and 60 percent of its iron production capacity destroyed in the war; moreover, the economy was seriously imbalanced due to the partitioning of the country. The Democratic People's Republic of Korea and the Democratic Republic of Vietnam began advancing to socialism from colonial economies paralyzed by exploitation and had to wage wars to defend their fatherlands and reunify their countries, etc.

The low level of economic development of the various countries during the initial stage of socialism can be seen in the following chart of per capita production of a number of primary products:

Chart 1:

	Electricity (kwh)	Petroleum (kg)	Coal (kg lump coal)	Steel (kg)	Machines Tools (1,000's)	Cement (kg)	Cotton cloth (m ²)	Sugar (kg)
USSR	507	200	1,247	152	71	57	16.6	14
GDR	1,059	-	2,836	69	24	77	8.3	32.9
Czechoslovakia	749	4	2,733	252	13	161	28.8	56.6
Poland	380	8	3,238	100	4	100	16.2	38.5
Hungary	32	52	912	112	...	85	18.9	19.2
Romania	130	312	209	34	-	63	9.2	5.3
Bulgaria	110	-	420	0.7	0.9	83	10	5.1
Albania	21	132	41	-	-	16	1***	-
China	8	0.3	74	1	1.6	2.4	3.2***	-
Korea	617	-	335	15	0.1	56	0.1	-
Mongolia	23	-	300	-	-	-	-	-
Vietnam**	3.2	-	46	-	-	0.7	4***	-
Meanwhile, the developed capitalist countries:								
USA	2,562	1,638	3,341	593	162	255	56	14.4
France	800	-	1,242	200	...	178	22	30.9
West Germany	966	-	3,103	293	...	232	17	19.1
Japan	541	-	469	58	...	54	16	-

** 1955

* 1961

*** meters

The imperialists thought that, in view of the crippled economic situation and the heavy damage caused by the war, socialism could not avoid "collapse" and they instituted an economic embargo against the USSR and the people's democracies in a vain attempt to accelerate this "collapse." However, things turned out contrary to their wishes. The USSR and the fraternal people's

democracies, relying upon the superior nature of the new social system and economic cooperation and mutual assistance in the proletarian international spirit, rapidly healed the wounds of the war and successfully carried out socialist economic transformation and construction. In a relatively short period of history, the initial poverty and backwardness had been repulsed, the economic face of the socialist countries had undergone a fundamental change and, in many countries, the difference between their level of development and that of the developed capitalist countries was very greatly reduced. The world socialist system is a region whose economy has developed at a high and stable rate. The chart presented below clearly shows the difference in economic potential between the USSR and the United States which has been constantly changing on the basis of the strong development of the soviet economy.

Chart 2:

USA=100

	1950	1957	1965	1975
National income	31	50	62	> 66
Industrial product	30	47	65	> 80
Agricultural product	55	< 70	~ 75	~ 85
Industrial labor productivity	30-40	40-50	40-50	> 55
Agricultural labor productivity	20	20-25	20-25	20-25
Primary product output:				
Coal	39	72	83	107.8*
Petroleum	14	28	63	120
Natural gas	3	7	28	39.5
Steel	30	49	75	128
Iron	32	51	82	111*
Electric power	22	28	41	50
Machines, tools	42	77	95	127
Mineral fertilizers	31	42	69	125
Chemical fibers	4	20	27	25
Cement	26	58	111	188
Cotton cloth	32	47	66	166
Woolen cloth	32	106	124	556*
Leather shoes	39	53	77	144*

* 1974

Since World War II, in all the socialist countries, socialism has not only stood firm, it has also been constantly strengthened and developed in order to reach a higher stage of development. The great economic achievements that have been recorded prove that socialism today is not only the most progressive socio-political system of the working people who have been freed from exploitation and are the masters of their destinies, but also a powerful economic force insuring the constant improvement of the material and cultural lives, insuring a civilized and happy life for the working people.

The socialist production relations occupy the dominant position within the national economy and have constantly been strengthened and improved.

This is the most important, basic achievement, it is the achievement which has opened the way to the other major achievements that have been recorded. In the economies of the various countries during the initial stage of the period of transition to socialism, the capitalist economic segment and small-scale commodity production were still widespread.

To abolish the exploitative production relations, the various countries carried out nationalization one after the other and put under state ownership those economic installations of key significance in the national economy. To prepare for nationalization, liquidation and economic control organizations of workers were established in all production-business installations and considered a necessary measure in order to stop and limit the negative aspects of capitalist production relations and create the conditions for the working class to study and receive practical training in economic management. The forms of nationalization differed from country to country depending upon specific historic circumstances. In eastern Europe, the people's democracies primarily employed the methods of confiscation and purchases. Poland's nationalization law promulgated in January 1946 provided for the confiscation of the assets of the former German fascists who occupied the country and their lackeys, the traitors, and the nationalization, with compensatory payments, of large and medium-scale production and business units (25 percent of the nationalized enterprises) but not the nationalization of small enterprises. In Czechoslovakia, the two stages of the nationalization process were carried out immediately after smashing the counter-revolutionary coup d'etat of the bourgeoisie; all enterprises employing 50 workers or more were put under state ownership primarily through non-compensatory confiscation. The GDR confiscated all of the assets of the fascists; the medium and small bourgeoisie were gradually transformed by means of state capitalism in order to avoid disrupting the domestic political situation and stabilize the supply of essentials to the people. The people's democracies in Asia, such as China, Korea and Vietnam, have primarily used the method of transforming the private capitalist enterprises into joint public-private enterprises and only confiscated the assets of the imperialist capitalists and their lackeys, the compradore bourgeoisie.

Generally speaking, by the late 1940's and early 1950's, this task had been successfully completed: in Bulgaria, state ownership comprised 84 percent of industrial production by the end of 1947; in Hungary, state ownership comprised 92 percent of industrial production by the end of 1949; in China, the state sector comprised 70 to 100 percent of the most important industrial sectors by 1950, etc.

The most important, difficult and complex task in the production relations revolution is the socialist transformation of private small-scale production, primarily the socialist transformation of the small farmer. The directives of Lenin concerning the system of cooperation and the experiences of the USSR in agricultural collectivization were studied and creatively applied by the various countries to their own circumstances. The common course followed by all countries was to organize various types of cooperatives on varying levels of public ownership in order to absorb small-scale producers

within these cooperative on the basis of the principle of voluntary association and mutual benefit with positive and comprehensive assistance from the state.

The GDR organized three types of agricultural production cooperatives; type I, the lowest form of cooperative, only involves public ownership of farmland and income is distributed to cooperative members by the following formula: 60 percent is distribution in accordance with labor and 40 percent of the cropland shared initially contributed. Czechoslovakia has four types of agricultural cooperatives, Hungary has two types, low level and high level cooperatives, and Poland has agricultural groups; the socialist countries in Asia established work exchange teams and gradually upgraded them to low level cooperatives, then high level cooperatives, etc. Generally speaking, agricultural collectivization had been virtually completed in practically all countries by the late 1950's and early 1960's. Within agriculture, the socialist economy comprises roughly 90 percent of agricultural land. In Poland, the socialist sector only comprised approximately 13 percent of agricultural land during this period.

Despite advancing to socialism on the basis of the remnants of the poor, backward economies of the old systems, all countries have thoroughly complied with Lenin's directives concerning financial and material assistance from the dictatorship of the proletariat state for the collectivization movement. In many countries, many of the assets and large farms of the exploiting classes were turned over to farmers to be built into cooperatives even during the period of agrarian reform. In the process of collectivization, the state regularly allocated capital and employed suitable forms of credit in order to supply the necessary instruments of production to cooperatives; at the same time, it actively provided material assistance for cooperatives to carry out water conservancy work and mechanization. During the period of collectivization, investments by the state in agriculture increased four to ten times. A network of machine-tractor stations was established: in 1950, Bulgaria had 115 of these stations, Hungary had 361, Romania had 138, Korea had 15, and so forth; by 1960, these countries had 211, 246, 243 and 89 such stations respectively. In view of the facts that cooperatives had only recently been established, their financial capabilities were weak, they had no technical workers and the scale of production was still small, the establishment of machine-tractor stations represented very effective material assistance from the state. Later, when the cooperatives had grown and were able to purchase and effectively use machinery, these stations shifted to the task of supporting the centralized, effective use of special purpose machines and providing assistance with technical control and repair work.

In 1958-1959, the percentage of the national economy comprised by the socialist sector in the various countries was as follows: [see chart following page.]

The establishment of the new production relations created the conditions for the strong development of production forces. In turn, the production relations

Chart 3:

	National Income	Industrial Product	Agricultural Land	Wholesale Commerce	Retail Commerce
USSR	99.99	100	99.9	100	100
Albania	67.7	97.8	81.5	100	82.7
Bulgaria	99.8	97.8	98.0	100	99.0
Hungary	65.2	97.8	50.3	100	98.8
Vietnam*	75.8	91.9	78.3	100	85
GDR	73	89.1	53	93	76.3
Korea	99.9	100	99.9	100	100
China	89.6	100	99.1	95.6	95.8
Cuba**	...	> 95	> 70	100	75
Mongolia	99.9	100	00.9	100	99.9
Poland	69.7	99.1	14	100	96.0
Romania	75	97.5	70.0	100	98.9
Czechoslovakia	89.0	100	82.6	100	99.8

* 1963 ** 1964

had to be constantly strengthened and improved in order to always be suited to the level of development of production forces. Here, strengthening the system of socialist public ownership of the instruments of production was an extremely important requirement. Within the agricultural sector, many measures were taken to raise the level of socialization of production. Many low level cooperatives were upgraded to high level cooperatives through mergers. The multi-faceted cooperative relations among cooperatives and between cooperatives and the state economic organizations were developed rather strongly. The private assets which cooperative members contributed originally gradually decreased in significance and comprised an increasingly small percentage of total cooperative assets. The assets purchased through the production development fund of the cooperative increased rather rapidly. Within cooperatives, distribution based on the assets originally contributed by members was gradually eliminated. For example, in Bulgaria, distribution based on the average amount of cropland contributed by members comprised 22.7 percent of the total income of the cooperative in 1951 but only 0.001 percent in 1961. Many countries began paying wages to agricultural cooperative members or coordinated cash payments with the distribution of products. Within the industrial, communications-transportation, and other enterprises, the instruments of production were under national ownership; however, the units using them were considered the representatives of this ownership. Therefore, heightening their spirit of responsibility in the use of these instruments of production was closely linked to the requirements of protecting and maintaining these instruments. Many measures were taken to closely link the results of the production of each person and production unit with the results of the use and maintenance of public assets.

In distribution, the principle of distribution in accordance with labor was thoroughly implemented and supplemented by means of many measures, such as

establishing a certain percentage of income which varies on the basis of the results of the implementation of the state plan; raising the minimum wage level and eliminating the unreasonable differences in the wage scale; implementing suitable price and tax policies in order to regulate income within agriculture; establishing labor quotas; issuing suitable bonus and penalty regulations, and so forth, all of which had a positive effect, strengthened the new production relations and stimulated the development of production.

In the GDR, due to the historical characteristics of the formation of Pho capitalism, there was a rather large middle class of private owners. In the production relations revolution, the state took the position of gradually transforming them in order to utilize their labor, knowledge and experience; therefore, the small-scale production units of private capitalists existed for a rather long time (at the end of 1971, private ownership comprised 5.4 percent of industry, 8.8 percent of construction, 4.1 percent of agriculture, 5.4 percent of commerce, etc.). The existence of this sector exerted many negative influences upon socio-economic development. In December 1971, the plenum of the Socialist Unity Party of Germany ratified a resolution on buying these enterprises from their owners. As a result, in 1975, the socialist sector comprised 100 percent of industrial production, 94.6 percent of useful farmland and 95.8 percent of national income.

In Poland, the private economic sector within agriculture, which had an average scale of 4.2 hectares, comprised 80.7 percent of agricultural land and 79.9 percent of commodity output in 1972. Agricultural production cooperatives, which were still small (an average of 250 hectares and 26 families, the majority of whom were families who did not previously own farmland or only owned a small amount), only comprised 1.4 percent of agricultural land and supplied slightly more than 2 percent of commodity output. In such a situation, the state, on the one hand, had to intensify its use of the system of economic and administrative measures in order to have a strong impact upon agricultural production, transform the structure of production, investment guidelines, and so forth; on the other hand, it had to continue the socialist transformation of the countryside. The universal form of transition to collective production, a form which was widely utilized, was the formation of agricultural production groups (which now encompass 55 percent of farm families). In addition, the state took many measures designed to provide material incentive for farmers to join cooperatives. In the recent past, it has rather strongly developed the "family cooperative" or "village cooperative" which consist of three families or more that are related to one another or are neighbors. These cooperatives sign long-term contracts to supply products to state farms and enterprises of the food industry.

The fact that the socialist production relations were established and assumed the dominant position within a relatively short amount of time in the face of difficulties and problems and certain shortcomings represents an achievement of very great significance in the socialist construction of the various countries. Never before in the history of mankind has a system

of ownership won victory as rapidly or completely as the system of socialist ownership did. Production forces face a future of unlimited development. During the 1918-1937 period of capitalist development, the industrial production of bourgeois Czechoslovakia only grew at an average annual rate of 1-2 percent. Following the establishment of the new production relations, the industrial production of the People's Republic of Czechoslovakia grew at an average rate of 14 percent and 10.5 percent per year during the first two 5-year plans for 1951-1955 and 1956-1960. During the 14 years of development under the people's government, Bulgaria's industry achieved a result equal to result of 67 years of development since the day it was liberated from the ruling yoke of Tho. In agricultural production, once their production activities had become stable, the cooperatives clearly showed their superior nature over the private way of earning a living. In Hungary, the cereal grain yields of the agricultural cooperatives were, at the very outset, 41 percent higher than the yields of private production. In the GDR, the cereal grain yield of cooperatives was 23.3 quintals per hectare in 1957 compared to less than 23 quintals for private production; in Romania, the 1957 sugar beet yield of cooperatives was 176 quintals per hectare compared to 152 quintals for private production, etc.

The significance of the victory of the new, socialist production relations goes beyond the scope of the economy because it has not only laid the groundwork for leaps forward in the economy, it has also brought about major changes in social life and had a strong impact upon the formation of the new, socialist man who lives and works in the spirit of "one for all and all for one." It can be said that it was chiefly because of the establishment of the right of collective ownership of the working people in economic life, the coordination of this right with the strong development of economic-national defense potential and the solidarity, mutual assistance and cooperation within the socialist camp that the people of Hungary smashed the counter-revolutionary rebellion in 1956, the people of Czechoslovakia repulsed the counter-attack of the counter-revolutionary forces against the communist party and dictatorship of the proletariat state in 1968 and the people of Vietnam won complete victory in the spring of 1975 in the war of resistance against the United States for national salvation.

Organizing and Managing the Entire National Economy in Accordance with a Unified Plan

When analyzing the process of the formation of large-scale capitalist production, Marx confirmed the achievements of capitalism in the creation of a scientific mode of management within the large-scale production installations in order to "regulate the individual jobs and fulfill the general functions arising from the action of the entire production body which differs from the action of its independent constituent members." When pointing out the inevitable nature of management under the conditions of large-scale production, he used the following imagery: "A soloist controls his own actions but an orchestra must have a conductor." However, the nature of capitalism stipulates that the capitalist state can never organize social production into an "orchestra" so that it can become the conductor. This

position can only be filled by the socialist state. Organizing and managing the entire national economy on the basis of a plan which is unified from top to bottom and "causes tens of millions of persons to fully obey one commander in the production and distribution of products" are achievements only the socialist state can record.

On the basis of the theoretical premises of Marxism-Leninism, the first dictatorship of the proletariat state established a nationwide, centralized mode of economic management. Immediately after they were born, the people's democracies, with the experience and the assistance of the USSR, were able to guide each economic activity of their country in a unified manner. From the original short-term and limited plans, they gradually advanced to long-term and more comprehensive plans. All of the people's democracies began the period of building the material and technical base of socialism with long-term plans. Despite certain shortcomings, such as scientific bases which were not sufficiently strong nor highly realistic, economic plans were, from the very outset, an important tool in successfully implementing the economic construction and development line of the party. The plan became the backbone of the socialist economic management system with the basic principle of management being democratic centralism.

During this period, planning was conducted on the basis of the system of management organizations centralized by sector. In accordance with directed norms from the upper echelon, the basic economic units formulated their production-technical-financial plans and the planning and management agencies on the central level directly determined and guided the fundamental activities of the basic units. The plan linked all production sectors and economic units within a unified system in which they were closely related to one another in the process of development. With the new system of economic management the anarchistic style of capitalist development in the national economy was abolished. Balance within the national economy was gradually formed and constantly maintained. Sector I, comprised primarily of the industries which produce the instruments of production for producing the instruments of production, was developed at the most rapid rate, thereby creating the conditions for equipping the national economy with technology. Agricultural production was developed in a manner balanced with industrial production as permitted by capabilities in order to complete its role as the base for industrial development. Planning also insured the balanced development of the various areas within the country, attention was given to comprehensively developing many areas that had been backward for a long time, production was redistributed in accordance with the principles of socialism and economic construction was closely coordinated with the strengthening of the national defense system. The economic plans assembled and developed many capabilities and potentials, thereby guaranteeing the strong development of social production. In practically all countries, the task of building the material-technical base of socialism which was set forth in the platform of the party during the period of transition to socialism was successfully completed after the second or third 5-year plan.

The system of socialist economic management has been a very effective tool guaranteeing the strong development of the economies of the various countries

on the basis of a unified plan. On the other hand, the strong development of the economy, reflected in the constantly increasing scale of production, the increasingly efficient structure of the economic sectors, the constant development of science and technology, the increasingly close and varied economic-production-technical relations among the economic units within the country and among the various countries, and so forth, demanded the constant improvement of the economic management system.

In the late 1950's many countries pointed out the weaknesses of the mode of economic management they were using. These weaknesses were too much centralization, restrictive, rigid administrative measures, inappropriate coordination between centralism and democracy, and so forth. These weaknesses impeded the progress of the national economy and limited the right of ownership and creativity of the basic units. On this basis, the various countries began to search for improvements in order to develop a better mode of management; however, the solutions employed at this time were sporadic and limited in nature. In 1957, Hungary gradually reduced its compulsory plan norms, merged small enterprises, increased the authority of the enterprise, eliminated a large number of the general departments under the ministries and intensified the use of material incentives. In the late 1950's, Romania implemented, on a pilot project basis, a new style system of labor quotas and wages, reduced the number of sector management ministries, increased the authority of the enterprises and widely implemented the cost accounting system. In 1956 and 1957, Poland took the first measures to limit the excessive number of details in the economic plans of the basic units and then reorganized the central industrial management departments of the ministries into federations of industrial enterprises. The 5th Congress of the Polish United Workers Party (June 1964) decided to have the enterprises and federations of enterprises widely participate in the formulation of plans and emphasized the importance of the long-term plan and the task of closely linking the use of economic levers with the various planning measures, etc.

In the mid-1960's, the USSR and many other socialist countries carried out economic reform for the purpose of meeting all the demands of the new period of development. Each country carried out a reform program with different specific requirements consistent with its special economic circumstances: "the new economic system for planning and leading the national economy" of the GDR which began in 1964, the "economic reform" of the USSR which began in 1965; "the new system for leading the national economy" of Bulgaria which began in 1966; "the reform of the economic structure" of Hungary which began in 1968, etc. However, one basic point is common to all of these programs: implementing a system of basic measures designed to insure the correct implementation of the principle of democratic centralism in economic management for the purpose of effectively coordinating the economic leadership role of the state with the autonomy and creativity of the economic units within the framework of the unified state plan and on the basis of widely utilizing the direct method of planning and the indirect method of the system of economic levers.

The plan has continued to be considered the pillar of the economic management system and confirmed as the base of all the economic activities of the

production-business units. Planning has been improved to be more flexible and of a more scientific, realistic and stable nature. The scientific-technological development plan is considered the premise of planning and the 15-20 year prospects plan has been elevated to the position of a factor determining the guidelines for the development of the entire national economy. Many countries have formulated prospect plans for the entire national economy for 1990 and for a number of sectors for the year 2000 on the basis of scientifically estimating social and personal needs as well as the sources of the necessary goods and services.

With regard to the relationship between centralization and democracy, the new economic management system has permitted the central planning and management organizations to free themselves from the function of planning the activities of the basic units in detail in order to concentrate on the most important aspects of the economic development task; the basic units have also been assigned additional authority and means to flexibly and effectively manage their daily activities. For example, Bulgaria's "new system for leading the national economy" stipulates that the Council of Ministers determines matters pertaining to economic development guidelines and the participation of the country in the international division of labor and cooperation and determines the policies on investments, prices, wages, finances and the economic levers in order to lead the national economy; the ministries and commissions are responsible for technical policies and the guidelines for the development of sectors and responsible for formulating the prospect plan and guiding the development of the specialization and cooperation of the entire sector. The general trend of economic reform in the various countries has been to provide the basic units with the authority and means needed to take initiative in their businesses and fully implement the system of cost accounting for the purpose of achieving financial self-sufficiency (enterprises are allowed to keep a higher percentage of their profits than previously in order to establish production development and material incentive funds). Through numerous pilot projects, all of the countries have confirmed that profits are the best norm for evaluating the results of the economic activities of the enterprise because they fully reflect both the results and the efficiency of production. The compulsory plan norms assigned to the enterprises of the various countries generally consist of such norms as those governing commodity output value, primary product output, the volume of investment capital, the rate of increase of labor productivity, the total wage fund, the amount of labor, the task of producing new products and applying new technical procedures in production, etc.

The establishment of the various forms of management organizations began with the establishment of vertical federations of production. On the other hand, in order to continue creating favorable conditions for management and planning, primarily for cooperation among the various sectors, the stages of production, specialization on the basis of product parts and components, the harmonious development of the various stages of product formation, from design and manufacture to the marketing of finished products, and so forth, the various countries have established vertical federations of production.

Generally speaking, the organizational structure of industry has been established on the basis of three elements in all countries: the enterprise--the industrial federation--the ministry. The reform of these forms of management organizations resulted in flexible, multi-faceted relationships among the economic units, reduced the excessive amount of centralization and coordinated management by sector with management by territory.

The new economic management system of the various countries gives very much attention to the role played by economic levers and material incentives in causing the production-business units and each worker to be more concerned with the results of their activities and closely link the interests of the part with the interests of the whole. The measures that have been commonly employed are: allowing the enterprise to keep a higher percentage of its profits in order to establish various funds, including the material incentives fund; establishing many forms of strict bonuses and penalties; and improving the various forms of distribution in accordance with labor so that distribution is closely linked to the quantity, quality and productivity of work and closely coordinates personal interests with the interests of the collective.

In their economic reform, many countries have utilized financial and credit relations and the system of prices as some of the important tools used to guide economic activities and increase the returns from production. A number of countries have instituted a profits tax, a production capital tax, a general wage fund tax, etc. In the formation of the sources of capital of the production units, bank credit has played a more important role in order to have an effective impact upon the economic activities of the enterprise. With regard to prices, many countries have established a new system of prices which more precisely reflects production costs. For example, costs once covered by the state budget have been incorporated in production costs. The various countries have also increased the authority of the production units in the establishment of the prices of certain commodities. Many countries are giving their attention to researching how to establish prices for new products of a higher technical level and higher quality that would stimulate production and technical advances, researching the relationship between domestic prices and international prices, etc.

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[Text] Production Has Developed at a High and Stable Rate and the Material-Technical Base of Socialism Was Rapidly Formed and Has Been Constantly Strengthened

While the development of the capitalist economy has been regularly interrupted by crises, the economy of the socialist countries has developed at a high and stable rate. The rate of development of the industrial production of the socialist countries during the 25 years from 1950 to 1975 was as follows:

Chart 4:	1950=100	The World	The Socialist Countries
1955		147	190
1960		209	359
1965		285	521
1970		388	732
1975		492	1,100
1951-1975(%)		6.6	10

Due to the high rate of development of production, many socialist countries became modern industrial-agricultural countries in a short amount of time. In 1950, industry only comprised 20-40 percent of total industrial-agricultural output in the socialist countries; however, it comprised 50-80 percent only 10 years later. In 1950, many countries had practically no heavy industry; however, after only a few 5-year plans, the output of the machine manufacturing, metallurgy, electric power and chemicals sectors comprised from 40 to 60 percent of total industrial output. The formation of a modern, complete industrial structure virtually changed the economic face of these countries. Continuous scientific and technological progress has had a strong impact upon the returns from economic development. To directly contribute to improving the material and spiritual standard of living of the people, light industry and the food industry have also been strongly developed (from two to five times between 1950 and 1970). The output of consumer goods has been rapidly increased and their quality has been gradually improved to meet the rising consumer needs of the people.

In 1950, the entire socialist camp only produced 147 billion kwh of electric power, 44 million tons of petroleum, 37 million tons of steel, approximately 3 or 4 million tons of basic chemical fertilizers and 6.5 billion square meters of cotton cloth. In 1975, the countries of the Economic Mutual Assistance Council (excluding Cuba) alone produced nearly 100 times more electric power, 10 times more petroleum, 4.8 times more steel, 10 times more fertilizer and nearly twice as much cotton cloth.

Agricultural production also has undergone basic changes in the process of forming the system of large-scale socialist production. The material-technical base of agriculture has been significantly strengthened and the processes of mechanization, electrification, the application of chemistry and the construction of water conservancy projects have recorded considerable results. At present, in the USSR, the eastern European socialist countries and Korea, the majority of field work is mechanized. China had five times more large tractors in use within agriculture in 1975 than in 1965, the number of small tractors increased 20-fold during the period between 1962 and 1972, the use of irrigation within agriculture increased three times, the use of chemical fertilizers and insecticides increased four times, the use of electricity within the countryside increased six times, etc. In the USSR and the eastern European socialist countries, the average tractor capacity per 100 hectares of farmland was only 27 horsepower in 1966; by 1974, it had increased to 93 horsepower; the quantity of basic element and mineral fertilizer applied per hectare of farmland increased from 42.55 kilograms in 1950 to 150.8 kilograms in 1974. In the Democratic Republic of Vietnam, there was an average 15 horsepower for every 394 hectares of farmland in 1972 (1965=2,750 hectares); the amount of electricity in use within agriculture increased three-fold between 1964 and 1972. Generally speaking, although still influenced by natural conditions, agricultural production in all countries has increased rather strongly on the basis of practicing a high level of intensive cultivation. As of 1975, China had harvested 14 consecutive bumper crops and, since 1964, grain output has stabilized at over 200 million tons (only slightly more than 100 million

tons were harvested in 1950, 275 million tons were harvested in 1974 and 284 million tons in 1975). The cereal grain output of the countries of the Economic Mutual Assistance Council increased from 180.5 million tons during the period between 1961-1965 to 265 million tons during the period between 1971-1975. The USSR and many other countries have had record harvests during the past several years. Hungary, Bulgaria and Romania have not only been self-sufficient in grain for many years, they annually export a rather large quantity of grain. The People's Democratic Republic of Korea had a cereal grain output of 3.8 million tons in 1960, 5.5 million tons in 1970 and more than 7.7 million tons in 1975. The output of products from the livestock production sector has increased markedly in all countries.

The achievements recorded in economic development over the past quarter of a century by the socialist countries lie not only in the fact that an increasingly strong material-technical base has been created for socialism, but also in the fact that a correct economic development strategy has been implemented in order to overcome difficulties and obstacles and rapidly achieve this strength. Despite different economic circumstances and different specific programs for development in each stage, all countries have fully implemented the strategy of giving priority to the development of the production of the instruments of production in coordination with the development of the consumer goods industry on the basis of continuously improving technology and insuring the highest possible returns from production.

In all countries, investments in industry have regularly comprised 30 to 50 percent of the total capital invested; investments in the production of the instruments of production have regularly comprised two-thirds to four-fifths the total amount of capital invested in industry. Of the various sectors producing instruments of production, the sector producing instruments of production for the production of instruments of production has been given more priority. The electric power, metallurgy, machine manufacturing and chemicals sectors have regularly comprised roughly 50 percent of the total capital invested in industry. The average rate of growth between 1951 and 1965 of a number of group A and group B industrial sectors was as follows:

Chart 5:

	Electricity	Machinery	Chemicals	Textiles	Food Products
USSR	12.2	14.9	14.8	7.2	7.9
Albania	23.6	18	12.1
Poland	13.4	20	16.3	9.1	7.1
Bulgaria	18.6	20.7	21.3	10	10.4
GDR	8.6	12.8	10.8	7.2	9.1
Hungary	11.0	12.5	17.7	6.3	8.1
Romania	16.5	20.1	21.9	9.3	8.9
Korea	4.7	27.5	16.5	20.3	...
Czechoslovakia	10.0	13.1	14.0	5.4	5.2

Within the socialist system, electric power production increased more than six times, metal refining increased nearly five times, chemical production increased nearly six times and the manufacture of machinery increased more

than five times from 1950 to 1970. During the period from 1971 to 1975, the electric power industry increased 1.3 times, the metallurgy industry increased 1.4 times, the machine manufacturing industry increased 1.5 times and the chemical industry increased 1.6 times in the countries of the Economic Mutual Assistance Council.

Machine manufacturing has been considered by all countries to be the most important heavy industrial sector, a sector in which development capital must be concentrated in order to use this sector as a lever for gradually moving the national economy forward on the basis of new technology. Investments in the machine sectors of the various countries, therefore, increased rather rapidly and, by the end of the period of building the material-technical base of socialism, all countries had constructed their heavy industry (the "heart" of which is the machine manufacturing sector), which was capable of re-equipping the entire national economy with technology, meeting the majority of the domestic need for machinery and equipment and exporting some machinery and equipment. The most strongly developed sectors were the machine and tool manufacturing sector and the sector manufacturing machines for agriculture and the mining industry; more recently, the most strongly developed sectors have been those producing equipment for the total mechanization and automation of production, machinery and equipment for the chemical and energy industries, electric power and electronic technology, etc.

In Korea, the machine sector comprised 8.1 percent of total industrial output in 1949; by 1953, it comprised 15.3 percent. In 1966, Korea had nearly 100 modern machine works producing such products as tool making machines, machines for use in mining, electric generators, automobiles, tractors and equipment for the metallurgy industry, the chemical industry, light industry, and so forth. In 1965, these machine works supplied 94 percent of the machinery and equipment used within the country. China, which once had no tractor manufacturing industry, now has installations producing tractors in 20 provinces and municipalities and 96 percent of the districts have agricultural machine manufacture and repair shops. During the years of the war, the Democratic Republic of Vietnam developed the machine industry rather strongly on both the central and local levels. During the period from 1965 to 1972, the capital invested in the electric power, coal and machine sectors regularly comprised more than 60 percent of the capital invested in the group A industrial sectors; the capital invested in the local machine industry comprised over 40 percent of the capital invested in the group A industrial sectors on the local level. Taking machine output in 1964 as 100, machine output in 1970 was 241.5. All of the countries of the Economic Mutual Assistance Council have constructed a modern, complete machine industry capable of producing the various types of machines and equipment requiring advanced technology. In 1950, machine products comprised no more than 10-15 percent of the total industrial output of the people's democracies of eastern Europe; now, they comprise 25 to 38 percent. The sectors which are the basis of scientific and technical advances, of the automation of production, such as the electronics sector, the radio sector, the implements sector and so forth have comprised an increasingly large percentage of total industrial output.

To implement the economic development strategy they had selected, all of the countries required a rather large volume of investment capital, especially during the initial stages. With the exception of the USSR, the first socialist country, whose only source of capital was capital accumulated within the country, the other socialist countries have had another very important source of capital, namely, mutual aid and help (primarily from the USSR). However, these countries have still considered domestically accumulated capital to be their primary source of capital. Generally speaking, accumulation was at first generally carried out through the development of agriculture and the mining industry. As permitted by natural conditions, many countries accelerated their mining and drilling industries during the initial stage (coal and metal ore mining, petroleum and natural gas drilling and so forth) in order to, on the one hand, directly support the development of the domestic refining industries and, on the other hand, convert these products, through foreign trade, into the machinery and other materials needed to create sources of capital for implementing their economic development strategy. For example, in the 1950's, Romania put 35-48 percent of its total investments in industry into the sectors developing petroleum, natural gas and coal. (In 1950, fuels, primarily petroleum, comprised 33.8 percent of total exports and machinery and equipment comprised nearly 40 percent of total imports) In the 1960's, Poland also allocated a rather large percentage of its investment capital for the development of the mining industry (primarily coal, the output of which was nearly 40 million tons in 1950). In 1950, the products of this type comprised more than 60 percent of Poland's total exports. In 1953, with a rather abundant source of exports consisting of such important minerals as iron ore, coal, wolfram, lead, zinc, and so forth, 81.8 percent of Korea's total exports in 1953 were various types of ores. Thus, the various countries provided a source of capital for the development of heavy industry and gradually resolved the problem of raw materials, fuels and energy for the economy.

The industries excavating and producing building materials and, in particular, the electric power and chemical industries have been rather strongly developed. In 1950, the capacity of the electric power plants of the entire socialist system was only about 29 million kw; by 1975, capacity had increased to nearly 300 million kw and, as a result, the use of electricity within the national economy increased nearly four times (between 1960 and 1974). Many countries, as permitted by natural conditions, have developed hydroelectric power in coordination with building dikes to support agricultural production and everyday life. The USSR constructed and put into use huge hydroelectric power plants with a capacity of 4 million or 5 million to 10 million kw. The People's Democratic Republic of Korea has also strongly developed the hydroelectric power sector and has one of the largest hydroelectric power plants in Asia (capacity: 700,000 kw). By 1960, Korea had completed its rural electrification program. The Democratic Republic of Vietnam, despite the circumstances of the fierce war, not only constantly maintained a flow of electricity in support of combat, production, and everyday life, but also continued to accelerate the production and supply of electric power. Taking electric power output

in 1964 as 100, output in 1973 was 135.2. As the first country in the world to use atomic power for peaceful purposes, including the construction of atomic power plants, the USSR today has 12 atomic power plants with a total capacity of 2.6 million kw.

With regard to the petroleum and natural gas production industry, the USSR, China and Romania have significant reserves. Through constantly improved drilling and refining technology, this sector has developed very rapidly and become an important sector in the development of many other economic sectors. The petroleum output of the USSR increased from 37 million tons in 1950 to 491 million tons in 1975 and the USSR has become the largest producer of petroleum in the world; at the same time, it is the main supplier of this type of strategic fuel to many other socialist countries. China, once a country which had to import petroleum (the most imported in any one year was 4 million tons, domestic output in 1949 was 0.1 million tons), has now become a country which exports much petroleum (output for 1975 was estimated at 70 million tons).

The development of the petroleum drilling industry created the conditions for the petrochemical sector, a sector considered one of the "catalysts" of scientific-technological advances and one of the sectors which yields the highest economic returns, to strongly develop. Prior to the 1960's, the development of this industry in the socialist countries was practically insignificant. In 1950, the synthetic resin and plastic output of the entire world was 1.6 million tons, of which the USSR only produced 75,000 tons and the GDR produced 38,000 tons (the United States produced 1.014 million tons); the chemical fiber output of these countries in 1950 was 24,000 and 93,000 tons respectively (with the United States producing 627,000 tons). In the years that followed, a marked change occurred: during the period between 1961 and 1973, the petrochemical industry developed 1.1 times more rapidly than the chemical industry, in general, in the GDR, 1.1 to 1.5 times more rapidly in Poland, the USSR and Czechoslovakia and from 1.8 to more than 2 times more rapidly in Bulgaria, Hungary and Romania.

However, the problem of establishing a balance between the development of the refining industries and the raw material, fuel and energy installations in the process of developing the country has been a rather difficult problem in many countries, one which has been given particular attention. For example, during the period between 1951 and 1960, the rate of development of the energy industry of the GDR equalled only 0.71 of the rate of development of industry, in general. In Czechoslovakia it equalled 0.8, in Poland 0.9, and in Hungary 0.95. The slow development of the basic raw materials industry, which restricted the development of the refining industries, and the failure to maintain a quantitative balance in capital investments were phenomena which occurred in many countries. Therefore, in the early 1960's, these countries took measures to correct these phenomena: they increased the use of existing production capacity, expanded the scale of production, equipped with more modern technology, accelerated research, exploration and surveys and constructed many new production installations. With regard to units in use, they set forth the task of reducing the consumption of raw materials,

fuel and energy on the basis of advanced, scientifically based consumption ceilings. Many countries, as a result of expanding their international cooperation and specialization, narrowed the scope of production of a number of sectors which used many metal raw materials. In particular, the strong development of the petrochemical industry made a positive contribution to providing sources of raw materials for many production sectors. For example, Romania, as a result of expanding and building many new mining and drilling installations, increased the mining of iron ore two times, increased the production of petroleum 1.2 times and natural gas production nearly 4 times and increased the mining of coal by more than 3 times. Under two programs, the 10 year (1951-1960) national electrification plan and the 10 year (1966-1975) electric power development plan, Romania increased its electric power output from 7.6 billion kwh in 1960 to more than 50 billion kwh in 1975. During the past several years, Hungary established seven concerted development programs of the state with a total of approximately 168 billion florin invested in these programs, 140 billion of which have been invested in the natural gas and petrochemical program. At the same time, the other programs, such as the program for the development of aluminum production, the program for the production of modern building materials, and so forth, are also designed to increase the capability of supplying raw materials to the various industrial sectors. Generally speaking, the average rate of development of the basic raw material industrial sectors in the countries of the Economic Mutual Assistance Council has been higher in recent years than the rate of development of industry.

Chart 6:

	1961-1965	1966-1970	1971-1974
Industrial production	8.9	8.6	8.7
Electricity and thermal power	12.8	10.9	7.7
Fuels	6.8	6.7	5.4
Metallurgy	9.3	8.7	8.0
Chemicals	13.7	13.0	12.6
Building materials	9.2	9.2	7.9

Giving priority to developing the production of the instruments of production is an economic strategy that has been thoroughly adhered to in the entire process of building and developing the socialist economy. However, due to the existence of the world socialist system and the formation and development of the socialist international division of labor, this priority has been applied in a flexible manner by the various countries. During the period of socialist industrialization, unable to calculate the special characteristics and new advantages resulting from the world socialist system, the eastern European people's democracies established the requirement of building a relatively complete economic structure to meet the majority of the needs of domestic production and consumption and set for themselves tasks in the construction of heavy industry that were too high. Generally speaking, however, the priority given to group A industry in these countries was still not as high as it was in the USSR following the October Revolution (group A industry developed 1.15 times faster than group B during the period from 1951 to 1955, 1.12 times faster during the period from 1956 to 1960 and 1.09 times faster during the period from 1961 to 1965; in the USSR, it developed

1.7 times faster during the period from 1929 to 1932). China, which has, as a result of its large size and large population, all the natural conditions needed to build an economy with a modern, complete structure and because of the pressing need to rapidly overcome poverty and backwardness, had to give rather high priority to this matter. During the period from 1953 to 1957, China's group A industry developed 1.69 times faster than group B; taking 1957 as 100, the rate of development of the production of the instruments of production and consumer goods was 214 and 178 in 1965, 377 and 283 in 1970 and 600 and 350 in 1974; during the period from 1950 to 1974, these two sectors developed at an average rate of 15.4 percent and 9.8 percent respectively. The People's Democratic Republic of Korea, because it has rich mineral resources, abundant water power and many other favorable conditions, has also given rather high priority to heavy industry. During the period from 1954 to 1956, heavy industry annually comprised an average of 81.35 percent of the capital invested in industry and 74.36 percent during the period from 1957 to 1964. As a result, Korea rapidly moved its economy forward on the basis of heavy industry and used heavy industry to have a strong impact upon agriculture in order to achieve a high level of intensive cultivation under the conditions of little cropland, poor soil fertility and a cold climate.

On the other hand, in the countries in which the level of economic development during the initial stage differed, the degree of priority given to heavy industry also differed or, during different periods, one country might reduce the priority given to heavy industry and even develop group B industry more rapidly in order to meet emergency needs for the development of agriculture and the improvement of the people's standard of living. Generally speaking, in the process of economic development, all of the countries have given appropriate attention to the consumer goods industries. In many countries, traditional light industrial sectors producing products which have long been famous in the world, such as textiles, clothing, food products, beverages, crystal, pottery and so forth have continued to be developed. It has been the strong development of the sectors producing the instruments of production that has insured and created the conditions for the rapid quantitative and qualitative development of the consumer goods sectors. In 1970, these sectors comprised 25 to 45 percent of total industrial output in many countries.

The majority of the socialist countries have favorable natural conditions for developing agricultural production. Therefore, all countries have directed full attention to balancing the priority given to the development of heavy industry with agriculture. As a result, in the process of the industrialization of the various countries, heavy industry has been formed and the material-technical base of agriculture has been constructed and strengthened. However, in practically all countries, this balanced development has, generally speaking, failed to meet requirements, especially during the initial period of industrialization. The average annual rate of increase of industrial and agricultural production in a number of countries during this period was as follows:

Chart 7:

	Industry 1951-1964	Agriculture 1953-1964
Albania	16	8
Poland	12	3
Bulgaria	14	5
GDR	10	2
Romania	13	4
Korea	20	11
China*	27	8
Czechoslovakia	9	2
Vietnam**	27	6

* 1951-1958

** 1956-1964

With regard to the significant difference in the rates of development of these two production sectors, it must be realized that the ability to accumulate capital is limited during the initial stage of the advance to socialism at a time when the need to develop industry is very pressing, consequently, it is difficult to mobilize much capital for the development of agriculture. On the other hand, it must be realized that in the economic development strategy of many countries during the initial period, the importance of agricultural production had not been fully evaluated. In the mid-1960's, attention was given to more strongly developing agriculture by gradually carrying out the industrialization of agriculture. Conditions existed for rather strongly increasing the investment of capital in agriculture: taking the capital invested by the USSR in agriculture from the October Revolution to 1975 as 100, the capital invested in the past 10 years equalled 66.5; in the eastern European socialist countries, the capital invested in agriculture during the past 15 years (1960-1975) increased two to three times; in China, the capital invested in agriculture has annually comprised an average 23 percent of the budget; in Korea, the capital invested in agriculture during the period from 1961-to 1969 comprised 20 percent of the total capital invested in the national economy, etc.

The strong development of agriculture demanded that the other production sectors, primarily industry, be strengthened in order to have an effective impact upon agriculture. Therefore, particular attention was given to the machine manufacturing industry in the task of manufacturing machine systems for agriculture; in addition, the chemical fertilizer sector had to rapidly increase the output of mineral fertilizers and the various chemicals used to protect crops. Special attention was given to water conservancy in order to increase the ability to deal with unfavorable weather conditions. The forms of organization of agricultural production and management were constantly improved. In many countries, the meshing of the industrial and agricultural production sectors led to the formation of agricultural-processing industry-commercial cooperatives.

Thus, since the late 1960's, with increasing attention to and the increasing centralization of the sources of development of agriculture, both farming and

livestock production in practically all of the countries have developed more rapidly and stably as seen in the following statistical chart:

Chart 8:

	Farming (1960 = 100)			Livestock Production (1960 = 100)		
	1965	1970	1974	1965	1970	1974
USSR	111	140	143	115	137	158
Poland	116	128	148	110	120	157
Bulgaria	112	133	133	127	150	179
GDR	95	98	113	114	127	155
Hungary	101	111	143	114	137	163
Mongolia	134	113	140	108	105	119
Romania	112	115	152	113	123	165
Czechoslovakia	84	111	128	109	123	140

	Cereal Grain Yields (quintals/hectare)			Milk Output (kg per cow)			
	1961- 1965	1966- 1970	1971- 1974	1960	1965	1970	1974
USSR	10.2	13.7	15.6	1,779	1,853	2,110	1,159
Poland	17.0	19.8	25.2	2,122	2,252	2,456	2,707
Bulgaria	19.0	27.4	33.0	1,444	1,740	2,211	2,326
GDR	25.3	29.4	35.9	2,669	2,940	3,160	3,501
Hungary	20.3	25.4	34.2	1,863	1,903	2,252	2,312
Mongolia	7.4	6.0	8.0	344	318	292	290
Romania	15.9	19.3	24.0	1,368	1,543	1,607	1,656
Czechoslovakia	21.8	26.6	34.0	1,862	2,015	2,565	2,900

The achievements in the development of production of the socialist countries since World War II have totally nullified the groundless argument of bourgeois scholars that the strategy of the socialist countries of giving priority to developing the production of the instruments of production is a "monistic heavy industry" strategy--a strategy of developing heavy industry on the basis of "crippling" the other production sectors.

Science and Technology Have Developed Strongly and Are Playing the Role of a Factor Directly Determining the Development of the Entire Economy and Increasing the Returns from Production

Practically all of the socialist countries were formerly economically backward, underdeveloped countries and they stepped from World War II with a poor material base, ravaged by war and economically surrounded by imperialism. For this reason, during the long period of time spent building the material-technical base of socialism, practically all of the socialist countries had to take the first steps in the task of carrying out the scientific-technological revolution in order to be able to reach the general level of development of the world. Throughout the 1950's, on the basis of the most advanced achievements of the world in science and technology, the various countries concentrated their efforts on restoring, building, and

strongly developing the machine manufacturing industry, the metallurgy industry, the electric power industry and so forth which created the material base for accelerating the development of science and technology. However, during this period of time, the majority of the socialist countries were still agricultural or agricultural-industrial countries with an incomplete industrial structure and weak scientific-technological capabilities. In 1955, of every 100 persons working in the national economic sectors of the USSR, only four had a high level education; by 1960, only five had a high level education. In 1950, the machine manufacturing industry of the GDR only comprised 24 percent of total industrial output value; in Romania it comprised only 10 percent; in Poland, 8 percent; in Korea, 8.1 percent, etc. The level of scientific-technological development of the USSR can be compared with that of the other socialist countries in eastern Europe in the following manner: in 1960, taking the USSR as 1, Bulgaria was 0.72, Hungary was 0.87, Poland was 0.86, Czechoslovakia was 1.1 and the GDR was 1.2.

However, relying upon the superior nature of the socialist system and with the spirit of selfless, creative labor of the new workers coordinated with cooperation and assistance among the fraternal socialist countries, the scientific-technological level of all countries was rapidly raised. Since the 1960's, in the stage of development in depth, scientific-technological advances have gradually become a factor determining the development of the economy in many countries. During this period, attention has been given to strongly developing modern industrial sectors and the majority of investment capital has been concentrated in the sectors determining scientific and technological progress in order to rapidly equip the entire national economy with new technology and upgrade production to a new level of technology. On the other hand, expenditures on scientific research and the training of skilled scientific-technical cadres have also increased rather rapidly and the purchasing of inventions of value from foreign countries has been accelerated. In the late 1960's and early 1970's, expenditures on scientific and technological research in the eastern European socialist countries, in general, comprised 2.5 to 4.5 percent of national income. In the GDR, during the period from 1966 to 1970, budget allocations for the expansion of scientific-technological potential increased an average 23 percent per year and expenditures on scientific-technological development during the period from 1971 to 1975 increased 86 percent. In Romania, expenditures on the expansion of the material base of scientific research work during the period from 1966 to 1970 totalled 1.7 billion lay and increased to 4.5 billion lay during the period from 1971 to 1975. In the USSR, total expenditures on science were 6.9 billion rubles in 1965, 11.7 billion rubles in 1970 and 16.4 billion rubles in 1974; the average annual rate of increase has surpassed the rate of increase of national income and investments in capital construction, etc. Therefore, both science and technology have developed strongly and recorded significant achievements. The new, socialist worker has not stopped at developing the correct understanding of the world, he has also been marching strongly down the road of transforming the world in accordance with his interests, etc. In recent years the number of high level specialists of several socialist countries has increased as follows:

Chart 9:

Unit: thousands of persons

	1960	1964	1970	1974
Poland	240(a)	310	502	676
Bulgaria	93	118	163	200
GDR	108	186(a)	260	368
USSR	3,545	4,891(b)	6,853	8,800
Czechoslovakia	158	227(c)	277	...
(a) 1958	(b) 1965	(c) 1966		

As a result of developing an increasingly full understanding of the role played by science and technology in economic life, all of the socialist countries, including the countries with a limited material-technical base, have given very much attention to stimulating the development of science and technology and consider this development an indispensable part of their economic development strategy. Together with carrying out the production relations revolution, they simultaneously carried out the scientific-technological revolution and relied upon the superior nature of the new socialist production relations to rapidly and effectively apply the latest achievements of science and technology in production. The scientific-technological revolution created changes in the entire process of social production. The new, constantly improved machinery and equipment have gradually replaced manual and semi-mechanized tools or old, unimproved machinery. In the USSR, during the 10 years from 1961 to 1970, the number of new, advanced machines, pieces of equipment, implements and tools manufactured was 3.5 times greater than during the preceding 10 years. In the GDR, 40 percent of the machinery and equipment now in use within industry are new types manufactured and put into use during the period from 1971 to 1975. Consequently, the amount of technology with which the worker has been equipped has increased rather rapidly in all countries. For example, in 1960, once backward Bulgaria equipped the average industrial production worker with 2.7 kw of machinery (installed capacity) which increased to 5.9 kw in 1965 and 11.1 kw in 1975. In Hungary, roughly 50 percent of labor was mechanized by 1972, etc. The process of orderly development from manual labor to mechanization has been intermixed with the process of leaps forward from manual labor directly to mechanization and automation. At present, in the countries that have completed the construction of the material-technical base of socialism and are advancing to developed socialism, the level of mechanization of labor within the national economy is 45 to 55 percent and 60 percent in a number of sectors. The constant improvement of work tools as a result of scientific and technological advances has strongly increased labor productivity. During the period from 1971 to 1975, 80 to 100 percent of the increase in national income and 70 to 90 percent of the increase in the industrial product of the countries of the Economic Mutual Assistance Council were the result of increases in labor productivity. The labor productivity of a number of countries has increased at the following annual rates:

Chart 10:

Unit: percent

	1961-1965	1966-1970	1971-1975
Poland	5.1	5.1	5.6
Bulgaria	6.8	7.2	8.0
Hungary	4.9	3.5	4.4
GDR	5.6	5.5	6.5
Romania	7.7	7.3	7.2
Czechoslovakia	3.5	5.2	5.7

Scientific-technical progress has also brought about revolutionary changes in work objectives and production technology. On the one hand, traditional technical principles have been maintained through the implementation of production processes of a high degree of continuity resulting from the widespread use of high pressures and high temperatures. On the other hand, a number of countries have begun the implementation of new technical principles resulting from the use of lazer technology, the use of ultra-sound, the use of technology based on processes involving microorganisms, etc. With regard to work objectives, many types of "classical" raw materials taken from natural sources have been replaced at an increasingly high rate by man-made or synthetic raw materials with more improved technical parameters. On the other hand, the scope of the use of natural raw materials has been expanded and the efficiency of the refining of these raw materials has been increased. Scientific-technological advances and the strong development of the chemical industry in the late 1960's produced an increasingly large quantity of various types of high polymer synthetic materials. The plastic and synthetic resin output of the USSR and the eastern European socialist countries was only 441,000 tons in 1960; by 1970, it had increased more than six times and reached nearly 4 million tons in 1974. The chemical fiber output of these countries increased from 515,000 tons in 1960 to 1.723 million tons in 1974. In 1973, 20 percent of the chemical fibers used by the USSR was produced domestically.

In terms of the energy used in the various economic sectors, the advances in science and technology increased the efficiency of the use of the sources of energy in solid, liquid and gaseous fuels; on the other hand, they have created the technical base for the development and use of new sources of energy: nuclear energy, solar energy, geothermal energy, water power, wind power, etc. Here, nuclear energy is considered the energy source of the future and the energy policies of all of the countries attach very much importance to this source of energy. Together with the USSR, the first country in the world to use atomic power for peaceful purposes, many other socialist countries either have or are constructing atomic power plants. The GDR, with technical assistance from the USSR, put into use its first atomic power plant, which has a capacity of 70,000 kw, and then built another atomic power plant which has a first phase capacity of 880,000 kw. During the period from 1971 to 1975, of the total 6 million kw of capacity put into use, 60 percent was supplied by the atomic power plants. In late 1972, Czechoslovakia also put its first atomic power plant, which has a capacity of 150,000 kw, into use; by the year 2000 atomic power is projected to comprise 50 percent of

electric power capacity. Many other socialist countries have also begun to build atomic power plants: in Romania, electric power will meet 20 percent of the country's electric power needs by 1990; by 1980, Poland will put its first atomic power plant, which will have a capacity of 440,000 kw, into use, etc.

Scientific-technological advances have caused production to become increasingly centralized because, only on the basis of highly centralized production is it possible to have the many conditions needed to closely link science with production so that science can become a direct production force. In recent years, in addition to the formation of highly centralized federations of production, federations of science-technology and production have appeared in many countries with the birth of scientific-industrial unions (in 1974, there were 1,425 production federations in the USSR, 80 of which were scientific-production federations). The development of the scientific-technological revolution brought about the "application of science to industry" and also created the material base for the "industrialization" of science. The level of centralization of industrial production has increased in a number of countries as follows: in the USSR, the number of industrial enterprises which had an output of 10 million rubles or more in 1964 only comprised 9 percent of the total number of enterprises but, by 1973, they comprised 16.2 percent and produced 77.3 percent of total industrial output value. In 1973, the number of enterprises with 3,000 workers or more comprised 2.8 percent of the total number of enterprises and produced 35.6 percent of industrial output value. In Czechoslovakia, the number of enterprises with more than 1,000 workers comprised 6.5 percent of the total number of enterprises in 1973 and produced 55 percent of the gross industrial product, etc.

With the constantly increasing level of centralization and specialization, industrial production created a firm base for the development of science and technology; at the same time, the role of industrial production in economic development has also constantly increased with the development of science and technology. The meshing of science-technology and production, primarily industrial production, has caused science-technology and production to have an impact upon each other and stimulate the development of the entire system of social production. Industrial production has played an increasingly large role as the dominant sector within the national economy. The structure of the various industrial production sectors has changed strongly under the impact of the scientific-technological revolution. The advanced industrial sectors, such as tool manufacturing, program controlled automated equipment, electronic equipment, electric technology, high polymer compounds, the refining of high quality metals, and so forth have developed strongly and become the moving force of the scientific-technological revolution. The industrial sector structure of a number of socialist countries has changed in the following manner (computed on the basis of the number of workers). See chart following page.

Under the impact of scientific-technological advances, agriculture has also undergone important changes and is gradually becoming a production sector of

Chart 11:

Unit: percent

	USSR		Czechoslovakia	
	1965	1974	1965	1974
Electric and thermal power	1.4	1.9	1.4	1.5
Fuels	6.0	4.5	8.8	6.3
Black metals	3.9	3.7	7.2	6.9
Colored metals	1.7	1.7
Machine manufacturing	34.6	38.3	33.1	34.7
Chemicals	4.8	5.4	4.4	5.0
Building materials	6.8	6.8	3.9	3.8
Textiles	7.5	6.7	10.2	9.8
Food products	8.3	9.0	7.7	7.9

	Hungary		Romania	
	1965	1974	1965	1974
Electric and thermal power	2.4	1.9	1.8	1.3
Fuels	10.6	7.5	5.6	3.7
Black metals	5.3	5.0	4.2	3.3
Colored metals	2.0	2.2	3.2	2.7
Machine manufacturing	27.3	29.3	23.2	30.4
Chemicals	4.9	5.6	5.3	6.8
Building materials	3.7	3.0	6.0	4.9
Textiles	9.9	8.7	11.1	12.3
Food products	8.3	9.3	8.7	7.9

an industrial nature. In recent years, rather large-scale industrial federations equipped with modern technology have appeared in many countries. In substance, these are large-scale production enterprises of an industrial nature. For example, in the GDR, there are installations raising more than 2,000 head of cattle and 45,000 hogs, units farmings 22,000 hectares of land, etc. In 1974, Bulgaria had 153 agricultural-industrial federations with an average scale of 6,941 workers, 21,000 hectares of farmland, 2,900 head of cattle, more than 11,000 hogs, etc.

The sectors of the "infrastructure" have also experienced new stages of development. The USSR, the first country in the world to use atomic power in communications-transportation and use supersonic jet technology in air transportation, has brought about leaps forward in the capacity and speed of means of transportation. The electrification of the rail system and the use of diesel locomotives has increased the economic returns from rail communications dozens of times. At present, in the USSR, 97 percent of rail lines have been electrified and diesel locomotives are in use on 64 percent. In Czechoslovakia, rail transportation primarily involved the use of steam locomotives in 1959; now, 92 percent of freight and passenger transportation by rail has been electrified and involves the use of diesel locomotives.

The scientific-technological revolution has had an extremely large impact upon the entire process of social production, upon the entire economic life of the countries and upon international economic relations. The worker, the

master of production, has also continuously grown in the struggle to transform nature. Along with the field of production, the non-production sectors have also been rapidly expanded and developed. In all socialist countries, the development of science and technology has not encountered the socio-economic obstacles encountered under capitalism and the achievements of science and technology have been coordinated with the superior nature of the socialist production relations which are transforming science and technology into a direct production force to stimulate the advance of the socialist economy.

(To be continued)

FOOTNOTES

1. K. Marx and F. Engels: "Manifesto of the Communist Party," Su That Publishing House, Hanoi, 1963, p 31.
2. Ibid., p 52.
3. K. Marx-F. Engels: "Selected Works," Volume II, Su That Publishing House, Hanoi, 1971, p 536.
4. Ibid., p 530.
5. F. Engels: "Anti-Duhring," Su That Publishing House, Hanoi, 1971, p 461.
6. K. Marx-F. Engels: "Manifesto of the Communist Party,"... p 45.
7. K. Marx-F. Engels: "Selected Works,"... pp 19-21.
8. V.I. Lenin: "Complete Works," Su That Publishing House, Hanoi, 1968, Volume 29, p 469.
9. V.I. Lenin: "Complete Works," Su That Publishing House, Hanoi, 1970, Volume 32, p 438.
10. V.I. Lenin: "Complete Works,"...p 529.
11. V.I. Lenin: "Complete Works, Su That Publishing House, Hanoi, 1971, Volume 27, p 525.
12. Le Duan: "Hang hai tien len duoi ngon co vi dai cua Cach mang thang Muoi" [Enthusiastically Advancing Under the Great Banner of the October Revolution], Su That Publishing House, Hanoi, 1967, p 11.

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